

Soil Descriptions - Non Technical

27B--Dickinson Fine Sandy Loam, 1 To 6 Percent Slopes

Component Description

Dickinson and similar soils

Extent: 90 percent of the unit

Slope range: 1 to 6 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.0 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

H1--0 to 16 inches; fine sandy loam

H2--16 to 29 inches; fine sandy loam

H3--29 to 60 inches; fine sand

35--Blue Earth Mucky Silt Loam

Component Description

Blue earth and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Relict lakebed

Slope range: 0 to 2 percent

Surface layer texture: Mucky silt loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 12.6 inches

Content of organic matter in the upper 10 inches: 17.5 percent

Typical profile:

H1--0 to 10 inches; mucky silt loam

H2--10 to 60 inches; mucky silt loam

39--Wadena Loam

Component Description

Wadena and similar soils

Extent: 90 percent of the unit

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 6.3 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

H1--0 to 20 inches; loam

H2--20 to 27 inches; loam

H3--27 to 60 inches; coarse sand

41A--Estherville Coarse Sandy Loam, 0 To 3 Percent Slopes

Component Description

Estherville and similar soils

Extent: 90 percent of the unit

Slope range: 0 to 3 percent

Surface layer texture: Coarse sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

H1--0 to 13 inches; coarse sandy loam

H2--13 to 19 inches; loam

H3--19 to 60 inches; gravelly coarse sand

84--Brownton Silty Clay Loam

Component Description

Brownton and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.6 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 9.9 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 18 inches; silty clay loam
H2--18 to 34 inches; silty clay
H3--34 to 60 inches; clay loam

94--Terril Loam

Component Description

Terril and similar soils

Extent: 90 percent of the unit

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.7 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

H1--0 to 37 inches; loam

H2--37 to 45 inches; loam

H3--45 to 60 inches; loam

106B--Lester Loam, 2 To 8 Percent Slopes

Component Description

Lester and similar soils

Extent: 90 percent of the unit

Slope range: 2 to 8 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February July August
September October December

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

H1--0 to 8 inches; loam

H2--8 to 28 inches; clay loam

H3--28 to 60 inches; loam

110--Marna Silty Clay

Component Description

Marna and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Silty clay

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April May

Wet soil moisture status is lowest (depth, months):

2.6 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 20 inches; silty clay

H2--20 to 36 inches; clay

H3--36 to 60 inches; clay loam

112--Harps Clay Loam

Component Description

Harps and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Rim on depression

Slope range: 0 to 2 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

H1--0 to 16 inches; clay loam

H2--16 to 32 inches; loam

H3--32 to 60 inches; loam

113--Webster Silty Clay Loam

Component Description

Webster and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
H1--0 to 20 inches; silty clay loam
H2--20 to 28 inches; clay loam
H3--28 to 60 inches; clay loam

114--Glencoe Clay Loam

Component Description

Glencoe and similar soils
Extent: 100 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 1 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 11.5 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
H1--0 to 39 inches; clay loam
H2--39 to 44 inches; loam
H3--44 to 60 inches; loam

130A--Nicollet Silty Clay Loam, 0 To 2 Percent Slopes

Component Description

Nicollet and similar soils
Extent: 85 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.7 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 18 inches; silty clay loam

H2--18 to 29 inches; clay loam

H3--29 to 60 inches; loam

130B--Nicollet Clay Loam, 2 To 5 Percent Slopes

Component Description

Nicollet and similar soils

Extent: 85 percent of the unit

Slope range: 2 to 5 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

H1--0 to 10 inches; clay loam

H2--10 to 21 inches; loam

H3--21 to 60 inches; loam

134--Okoboji Silty Clay Loam

Component Description

Okoboji and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 1 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October

November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 11.7 inches

Content of organic matter in the upper 10 inches: 8.5 percent

Typical profile:

H1--0 to 10 inches; silty clay loam

H2--10 to 32 inches; silty clay loam

H3--32 to 60 inches; silt loam

140--Spicer Silty Clay Loam

Component Description

Spicer and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.8 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 22 inches; silty clay loam

H2--22 to 32 inches; silt loam

H3--32 to 60 inches; silt loam

230A--Guckeen Clay Loam, 0 To 2 Percent Slopes

Component Description

Guckeen and similar soils

Extent: 90 percent of the unit

Slope range: 0 to 2 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

H1--0 to 14 inches; clay loam

H2--14 to 28 inches; clay

H3--28 to 60 inches; clay loam

230B--Guckeen Clay Loam, 2 To 6 Percent Slopes

Component Description

Guckeen and similar soils

Extent: 90 percent of the unit

Slope range: 2 to 6 percent

Surface layer texture: Clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April May
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 5.0 percent
Typical profile:
H1--0 to 14 inches; clay loam
H2--14 to 28 inches; clay
H3--28 to 60 inches; clay loam

238B--Kilkenny Clay Loam, 2 To 6 Percent Slopes

Component Description

Kilkenny and similar soils
Extent: 90 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 2.9 percent
Typical profile:
H1--0 to 9 inches; clay loam
H2--9 to 36 inches; clay loam
H3--36 to 60 inches; loam

238C--Kilkenny Clay Loam, 6 To 12 Percent Slopes

Component Description

Kilkenny and similar soils
Extent: 90 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
1.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
H1--0 to 9 inches; clay loam

H2--9 to 36 inches; clay loam
H3--36 to 60 inches; loam

336--Delft Loam

Component Description

Delft and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Drainageway

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.2 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 21 inches; loam

H2--21 to 30 inches; loam

H3--30 to 36 inches; loam

H4--36 to 60 inches; sandy loam

392--Biscay Loam

Component Description

Biscay and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

2.0 feet August

Ponding: None

Available water capacity to a depth of 60 inches: 6.5 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 18 inches; loam

H2--18 to 28 inches; loam

H3--28 to 60 inches; gravelly coarse sand

399--Biscay Loam, Depressional

Component Description

Biscay and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 6.9 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 21 inches; loam

H2--21 to 30 inches; loam

H3--30 to 60 inches; gravelly coarse sand

413--Osakis Sandy Loam

Component Description

Osakis and similar soils

Extent: 90 percent of the unit

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.0 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

H1--0 to 12 inches; sandy loam

H2--12 to 18 inches; sandy loam

H3--18 to 40 inches; gravelly coarse sand

H4--40 to 60 inches; coarse sand

423--Seaforth Loam

Component Description

Seaforth and similar soils

Extent: 85 percent of the unit

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.0 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

H1--0 to 10 inches; loam

H2--10 to 19 inches; loam

H3--19 to 60 inches; loam

444--Canisteo Silty Clay Loam

Component Description

Canisteo and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Rim on depression

Slope range: 0 to 2 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.0 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 17 inches; silty clay loam

H2--17 to 27 inches; silty clay loam

H3--27 to 60 inches; loam

446A--Normania Loam, 0 To 2 Percent Slopes

Component Description

Normania and similar soils

Extent: 90 percent of the unit

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 15 inches; loam

H2--15 to 25 inches; loam

H3--25 to 60 inches; loam

446B--Normania Loam, 2 To 5 Percent Slopes

Component Description

Normania and similar soils

Extent: 90 percent of the unit

Slope range: 2 to 5 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 6.0 percent

Typical profile:

H1--0 to 15 inches; loam

H2--15 to 25 inches; loam

H3--25 to 60 inches; loam

447--Harpster Silty Clay Loam

Component Description

Harpster and similar soils

Extent: 90 percent of the unit

Geomorphic description:

Rim on depression

Slope range: 0 to 2 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 12.5 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

H1--0 to 17 inches; silty clay loam

H2--17 to 26 inches; silty clay loam

H3--26 to 60 inches; silt loam

462E--Sunburg Fine Sandy Loam, 18 To 25 Percent Slopes

Component Description

Sunburg and similar soils

Extent: 85 percent of the unit

Slope range: 18 to 25 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.1 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

H1--0 to 7 inches; fine sandy loam

H2--7 to 60 inches; fine sandy loam

523--Houghton Muck

Component Description

Houghton and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 2 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October
November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 84.5 percent

Typical profile:

H1--0 to 60 inches; muck

525--Muskego Muck

Component Description

Muskego and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 16.2 inches
Content of organic matter in the upper 10 inches: 75.0 percent
Typical profile:
H1--0 to 19 inches; muck
H2--19 to 60 inches; coprogenous earth

539--Palms Muck

Component Description

Palms and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 2 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October

November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 17.3 inches

Content of organic matter in the upper 10 inches: 42.5 percent

Typical profile:

H1--0 to 27 inches; muck

H2--27 to 42 inches; silty clay loam

H3--42 to 60 inches; loam

548--Palms Muck, Sandy Substratum

Component Description

Palms and similar soils

Extent: 100 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 2 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 14.2 inches
Content of organic matter in the upper 10 inches: 35.0 percent
Typical profile:
H1--0 to 27 inches; muck
H2--27 to 39 inches; sandy clay loam
H3--39 to 60 inches; gravelly loamy coarse sand

559--Lena Muck

Component Description

Lena and similar soils

Extent: 100 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 2 percent
Surface layer texture: Muck
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 23.9 inches
Content of organic matter in the upper 10 inches: 79.5 percent
Typical profile:
H1--0 to 60 inches; muck

566--Regal Loam

Component Description

Regal and similar soils

Extent: 90 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
2.0 feet August

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

H1--0 to 14 inches; loam

H2--14 to 18 inches; sandy loam

H3--18 to 60 inches; gravelly coarse sand

611D--Hawick Gravelly Loamy Coarse Sand, 12 To 20 Percent Slopes

Component Description

Hawick and similar soils

Extent: 90 percent of the unit

Slope range: 12 to 20 percent

Surface layer texture: Gravelly loamy coarse sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.3 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

H1--0 to 11 inches; gravelly loamy coarse sand

H2--11 to 16 inches; gravelly loamy coarse sand

H3--16 to 60 inches; gravelly coarse sand

611F--Hawick Gravelly Loamy Coarse Sand, 20 To 35 Percent Slopes

Component Description

Hawick and similar soils

Extent: 90 percent of the unit

Slope range: 20 to 35 percent

Surface layer texture: Gravelly loamy coarse sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.3 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

H1--0 to 11 inches; gravelly loamy coarse sand

H2--11 to 16 inches; gravelly loamy coarse sand

H3--16 to 60 inches; gravelly coarse sand

613--Grovecity Loam

Component Description

Grovecity and similar soils

Extent: 90 percent of the unit

Slope range: 1 to 3 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.1 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 16 inches; loam
H2--16 to 27 inches; fine sandy loam
H3--27 to 60 inches; fine sandy loam

804B--Koronis-Hawick Complex, 2 To 6 Percent Slopes

Component Description

Koronis and similar soils

Extent: 65 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.2 inches
Content of organic matter in the upper 10 inches: 2.1 percent
Typical profile:
H1--0 to 7 inches; sandy loam
H2--7 to 29 inches; sandy clay loam
H3--29 to 60 inches; fine sandy loam

Hawick and similar soils

Extent: 20 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Gravelly loamy coarse sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.4 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
H1--0 to 10 inches; gravelly loamy coarse sand
H2--10 to 22 inches; gravelly loamy coarse sand
H3--22 to 60 inches; gravelly coarse sand

804C--Koronis-Hawick Complex, 6 To 12 Percent Slopes

Component Description

Koronis and similar soils

Extent: 65 percent of the unit
Slope range: 6 to 12 percent

Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.2 inches
Content of organic matter in the upper 10 inches: 2.1 percent
Typical profile:
 H1--0 to 7 inches; sandy loam
 H2--7 to 29 inches; sandy clay loam
 H3--29 to 60 inches; fine sandy loam

Hawick and similar soils

Extent: 20 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Gravelly loamy coarse sand
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.4 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
 H1--0 to 10 inches; gravelly loamy coarse sand
 H2--10 to 22 inches; gravelly loamy coarse sand
 H3--22 to 60 inches; gravelly coarse sand

804D--Koronis-Hawick Complex, 12 To 20 Percent Slopes

Component Description

Koronis and similar soils

Extent: 65 percent of the unit
Slope range: 12 to 20 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.2 inches
Content of organic matter in the upper 10 inches: 2.1 percent
Typical profile:
 H1--0 to 7 inches; sandy loam
 H2--7 to 29 inches; sandy clay loam
 H3--29 to 60 inches; fine sandy loam

Hawick and similar soils

Extent: 20 percent of the unit
Slope range: 12 to 20 percent
Surface layer texture: Gravelly loamy coarse sand
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.4 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

H1--0 to 10 inches; gravelly loamy coarse sand

H2--10 to 22 inches; gravelly loamy coarse sand

H3--22 to 60 inches; gravelly coarse sand

804E--Koronis-Hawick Complex, 20 To 30 Percent Slopes

Component Description

Koronis and similar soils

Extent: 65 percent of the unit

Slope range: 20 to 30 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.2 inches

Content of organic matter in the upper 10 inches: 2.1 percent

Typical profile:

H1--0 to 7 inches; sandy loam

H2--7 to 29 inches; sandy clay loam

H3--29 to 60 inches; fine sandy loam

Hawick and similar soils

Extent: 20 percent of the unit

Slope range: 20 to 30 percent

Surface layer texture: Gravelly loamy coarse sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.4 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

H1--0 to 10 inches; gravelly loamy coarse sand

H2--10 to 22 inches; gravelly loamy coarse sand

H3--22 to 60 inches; gravelly coarse sand

805B--Wadenill-Sunburg Loams, 2 To 6 Percent Slopes

Component Description

Wadenill and similar soils

Extent: 60 percent of the unit

Slope range: 2 to 6 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 3.5 percent

Typical profile:

H1--0 to 10 inches; loam
H2--10 to 31 inches; sandy loam
H3--31 to 60 inches; fine sandy loam

Sunburg and similar soils

Extent: 25 percent of the unit
Slope range: 4 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.4 inches
Content of organic matter in the upper 10 inches: 2.1 percent
Typical profile:
H1--0 to 8 inches; loam
H2--8 to 60 inches; fine sandy loam

805C--Sunburg-Wadenill Complex, 6 To 12 Percent Slopes

Component Description

Sunburg and similar soils

Extent: 55 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.4 inches
Content of organic matter in the upper 10 inches: 2.1 percent
Typical profile:
H1--0 to 8 inches; loam
H2--8 to 60 inches; fine sandy loam

Wadenill and similar soils

Extent: 30 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Fine sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
H1--0 to 10 inches; fine sandy loam
H2--10 to 31 inches; fine sandy loam
H3--31 to 60 inches; fine sandy loam

805D--Sunburg-Wadenill Complex, 12 To 18 Percent Slopes

Component Description

Sunburg and similar soils

Extent: 70 percent of the unit

Slope range: 12 to 18 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.4 inches

Content of organic matter in the upper 10 inches: 2.1 percent

Typical profile:

H1--0 to 8 inches; loam

H2--8 to 60 inches; fine sandy loam

Wadenill and similar soils

Extent: 20 percent of the unit

Slope range: 12 to 18 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.4 inches

Content of organic matter in the upper 10 inches: 3.5 percent

Typical profile:

H1--0 to 10 inches; fine sandy loam

H2--10 to 31 inches; fine sandy loam

H3--31 to 60 inches; fine sandy loam

806C--Guckeen-Arkton Complex, 4 To 12 Percent Slopes

Component Description

Guckeen and similar soils

Extent: 60 percent of the unit

Slope range: 4 to 12 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April May June

Wet soil moisture status is lowest (depth, months):

More than 6.6 feet January February March July

August September October

November December

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

H1--0 to 12 inches; silty clay loam

H2--12 to 26 inches; clay

H3--26 to 60 inches; clay loam

Arkton and similar soils

Extent: 25 percent of the unit

Slope range: 4 to 12 percent

Surface layer texture: Clay

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April May June

Wet soil moisture status is lowest (depth, months):

More than 6.6 feet January February March July
August September October
November December

Ponding: None

Available water capacity to a depth of 60 inches: 9.4 inches

Content of organic matter in the upper 10 inches: 3.3 percent

Typical profile:

H1--0 to 9 inches; clay

H2--9 to 27 inches; clay

H3--27 to 60 inches; clay loam

806D--Guckeen-Arkton Complex, 12 To 18 Percent Slopes

Component Description

Guckeen and similar soils

Extent: 60 percent of the unit

Slope range: 12 to 18 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April May June

Wet soil moisture status is lowest (depth, months):

More than 6.6 feet January February March July
August September October
November December

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 5.0 percent

Typical profile:

H1--0 to 12 inches; silty clay loam

H2--12 to 26 inches; clay

H3--26 to 60 inches; clay loam

Arkton and similar soils

Extent: 30 percent of the unit

Slope range: 12 to 18 percent

Surface layer texture: Clay

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April May June

Wet soil moisture status is lowest (depth, months):

More than 6.6 feet

January February March July
August September October
November December

Ponding: None

Available water capacity to a depth of 60 inches: 9.4 inches

Content of organic matter in the upper 10 inches: 3.3 percent

Typical profile:

H1--0 to 9 inches; clay

H2--9 to 22 inches; clay

H3--22 to 60 inches; clay loam

807B--Koronis-Sunburg Complex, 2 To 6 Percent Slopes

Component Description

Koronis and similar soils

Extent: 65 percent of the unit

Slope range: 2 to 6 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.1 inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

H1--0 to 8 inches; sandy loam

H2--8 to 26 inches; sandy clay loam

H3--26 to 60 inches; fine sandy loam

Sunburg and similar soils

Extent: 20 percent of the unit

Slope range: 4 to 6 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.4 inches

Content of organic matter in the upper 10 inches: 2.1 percent

Typical profile:

H1--0 to 8 inches; loam

H2--8 to 60 inches; fine sandy loam

807C--Koronis-Sunburg Complex, 6 To 12 Percent Slopes

Component Description

Koronis and similar soils

Extent: 60 percent of the unit

Slope range: 6 to 12 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.1 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
H1--0 to 8 inches; sandy loam
H2--8 to 26 inches; sandy clay loam
H3--26 to 60 inches; fine sandy loam

Sunburg and similar soils

Extent: 30 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.4 inches
Content of organic matter in the upper 10 inches: 2.1 percent
Typical profile:
H1--0 to 8 inches; loam
H2--8 to 60 inches; fine sandy loam

807D--Koronis-Sunburg Complex, 12 To 20 Percent Slopes

Component Description

Koronis and similar soils

Extent: 55 percent of the unit
Slope range: 12 to 20 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.1 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
H1--0 to 8 inches; sandy loam
H2--8 to 26 inches; sandy clay loam
H3--26 to 60 inches; fine sandy loam

Sunburg and similar soils

Extent: 35 percent of the unit
Slope range: 12 to 20 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.4 inches
Content of organic matter in the upper 10 inches: 2.1 percent
Typical profile:
H1--0 to 8 inches; loam
H2--8 to 60 inches; fine sandy loam

807E--Koronis-Sunburg Complex, 20 To 30 Percent Slopes

Component Description

Koronis and similar soils

Extent: 50 percent of the unit
Slope range: 20 to 30 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.1 inches
Content of organic matter in the upper 10 inches: 2.2 percent
Typical profile:
 H1--0 to 8 inches; sandy loam
 H2--8 to 26 inches; sandy clay loam
 H3--26 to 60 inches; fine sandy loam

Sunburg and similar soils

Extent: 40 percent of the unit
Slope range: 20 to 30 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.4 inches
Content of organic matter in the upper 10 inches: 2.1 percent
Typical profile:
 H1--0 to 8 inches; loam
 H2--8 to 60 inches; fine sandy loam

809--Lowlein-Estherville Sandy Loams

Component Description

Lowlein and similar soils

Extent: 65 percent of the unit
Slope range: 0 to 2 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
 2.5 feet April
Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 9.1 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
 H1--0 to 14 inches; sandy loam
 H2--14 to 24 inches; sandy loam

H3--24 to 31 inches; loamy sand

H4--31 to 60 inches; loam

Estherville and similar soils

Extent: 20 percent of the unit

Slope range: 0 to 2 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.1 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

H1--0 to 10 inches; sandy loam

H2--10 to 18 inches; sandy loam

H3--18 to 60 inches; gravelly coarse sand

810--Coriff-Fieldon Complex

Component Description

Coriff and similar soils

Extent: 45 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

2.0 feet August

Ponding: None

Available water capacity to a depth of 60 inches: 10.0 inches

Content of organic matter in the upper 10 inches: 8.0 percent

Typical profile:

H1--0 to 10 inches; loam

H2--10 to 24 inches; sandy loam

H3--24 to 33 inches; loamy fine sand

H4--33 to 60 inches; loam

Fieldon and similar soils

Extent: 45 percent of the unit

Geomorphic description:

Flat

Slope range: 0 to 2 percent

Surface layer texture: Fine sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

2.0 feet August

Ponding: None
Available water capacity to a depth of 60 inches: 6.3 inches
Content of organic matter in the upper 10 inches: 5.5 percent
Typical profile:
H1--0 to 17 inches; fine sandy loam
H2--17 to 27 inches; fine sandy loam
H3--27 to 60 inches; fine sand

817--Canisteo-Seaforth Complex

Component Description

Canisteo and similar soils

Extent: 55 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.2 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 22 inches; silty clay loam
H2--22 to 30 inches; silty clay loam
H3--30 to 60 inches; loam

Seaforth and similar soils

Extent: 30 percent of the unit
Slope range: 1 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
2.5 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 11.0 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 19 inches; loam
H3--19 to 60 inches; loam

819B--Regal-Hawick Complex, 0 To 4 Percent Slopes

Component Description

Regal and similar soils

Extent: 55 percent of the unit

Geomorphic description:

Flat
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
2.0 feet August
Ponding: None
Available water capacity to a depth of 60 inches: 4.5 inches
Content of organic matter in the upper 10 inches: 7.5 percent
Typical profile:
H1--0 to 17 inches; loam
H2--17 to 60 inches; gravelly coarse sand

Hawick and similar soils

Extent: 35 percent of the unit
Slope range: 2 to 4 percent
Surface layer texture: Gravelly loamy coarse sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.1 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
H1--0 to 10 inches; gravelly loamy coarse sand
H2--10 to 60 inches; sand

833B--Wadenill-Sunburg-Hawick Complex, 2 To 6 Percent Slopes

Component Description

Wadenill and similar soils

Extent: 40 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 24 inches; sandy loam
H3--24 to 60 inches; fine sandy loam

Sunburg and similar soils

Extent: 30 percent of the unit
Slope range: 4 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:

Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.4 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
H1--0 to 7 inches; loam
H2--7 to 60 inches; fine sandy loam

Hawick and similar soils

Extent: 20 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Loamy coarse sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
H1--0 to 10 inches; loamy coarse sand
H2--10 to 14 inches; loamy coarse sand
H3--14 to 60 inches; coarse sand

833C--Sunburg-Wadenill-Hawick Complex, 6 To 12 Percent Slopes

Component Description

Sunburg and similar soils

Extent: 40 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.4 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
H1--0 to 7 inches; loam
H2--7 to 60 inches; loam

Wadenill and similar soils

Extent: 30 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:

H1--0 to 10 inches; loam
H2--10 to 24 inches; sandy loam
H3--24 to 60 inches; fine sandy loam

Hawick and similar soils

Extent: 20 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loamy coarse sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
H1--0 to 10 inches; loamy coarse sand
H2--10 to 14 inches; loamy coarse sand
H3--14 to 60 inches; coarse sand

833D--Sunburg-Wadenill-Hawick Complex, 12 To 18 Percent Slopes

Component Description

Sunburg and similar soils

Extent: 45 percent of the unit
Slope range: 12 to 18 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.4 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
H1--0 to 7 inches; loam
H2--7 to 60 inches; loam

Wadenill and similar soils

Extent: 30 percent of the unit
Slope range: 12 to 18 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 24 inches; sandy loam
H3--24 to 60 inches; fine sandy loam

Hawick and similar soils

Extent: 20 percent of the unit
Slope range: 12 to 18 percent

Surface layer texture: Loamy coarse sand
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
 H1--0 to 10 inches; loamy coarse sand
 H2--10 to 14 inches; loamy coarse sand
 H3--14 to 60 inches; coarse sand

833E--Sunburg-Wadenill-Hawick Complex, 18 To 35 Percent Slopes

Component Description

Sunburg and similar soils

Extent: 50 percent of the unit
Slope range: 18 to 35 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 9.4 inches
Content of organic matter in the upper 10 inches: 1.9 percent
Typical profile:
 H1--0 to 7 inches; loam
 H2--7 to 60 inches; loam

Hawick and similar soils

Extent: 20 percent of the unit
Slope range: 18 to 35 percent
Surface layer texture: Loamy coarse sand
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
 H1--0 to 10 inches; loamy coarse sand
 H2--10 to 14 inches; loamy coarse sand
 H3--14 to 60 inches; coarse sand

Wadenill and similar soils

Extent: 20 percent of the unit
Slope range: 18 to 25 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches
Content of organic matter in the upper 10 inches: 3.5 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 24 inches; loam
H3--24 to 60 inches; fine sandy loam

842--Urban Land-Udorthents Complex

Component Description

Urban land

Extent: 50 percent of the unit
Flooding: None
Ponding: None

Udorthents

Extent: 40 percent of the unit
Slope range: 0 to 10 percent
Surface layer texture: Loam
Drainage class: Well drained
Flooding: None
Ponding: None
Available water capacity to a depth of 60 inches: 6.6 inches
Content of organic matter in the upper 10 inches: 0.8 percent
Typical profile:
H1--0 to 60 inches; loam

875B--Estherville-Hawick Complex, 2 To 6 Percent Slopes

Component Description

Estherville and similar soils

Extent: 60 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Sandy loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Somewhat excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 4.1 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 12 inches; sandy loam
H2--12 to 18 inches; sandy loam
H3--18 to 60 inches; coarse sand

Hawick and similar soils

Extent: 25 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Loamy coarse sand
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.2 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

H1--0 to 12 inches; loamy coarse sand

H2--12 to 60 inches; gravelly coarse sand

875C--Hawick-Estherville Complex, 6 To 12 Percent Slopes

Component Description

Hawick and similar soils

Extent: 65 percent of the unit

Slope range: 6 to 12 percent

Surface layer texture: Gravelly loamy coarse sand

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Excessively drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.1 inches

Content of organic matter in the upper 10 inches: 2.0 percent

Typical profile:

H1--0 to 10 inches; gravelly loamy coarse sand

H2--10 to 60 inches; gravelly coarse sand

Estherville and similar soils

Extent: 20 percent of the unit

Slope range: 6 to 12 percent

Surface layer texture: Sandy loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.1 inches

Content of organic matter in the upper 10 inches: 3.0 percent

Typical profile:

H1--0 to 12 inches; sandy loam

H2--12 to 18 inches; sandy loam

H3--18 to 60 inches; gravelly coarse sand

897B--Seaforth-Swanlake Loams, 2 To 6 Percent Slopes

Component Description

Seaforth and similar soils

Extent: 60 percent of the unit

Slope range: 2 to 4 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Moderately well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 11.2 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

H1--0 to 15 inches; loam

H2--15 to 21 inches; loam

H3--21 to 60 inches; loam

Swanlake and similar soils

Extent: 30 percent of the unit

Slope range: 2 to 6 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet April

Wet soil moisture status is lowest (depth, months):

More than 5.0 feet January February July August
September October December

Ponding: None

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

H1--0 to 9 inches; loam

H2--9 to 60 inches; loam

899--Harps-Okoboji Complex

Component Description

Harps and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Rim on depression

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot April

Wet soil moisture status is lowest (depth, months):

3.3 feet February August

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

H1--0 to 17 inches; loam

H2--17 to 27 inches; loam

H3--27 to 60 inches; loam

Okoboji and similar soils

Extent: 35 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 1 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None
Wet soil moisture status is highest (depth, months):
 At the surface March April
Wet soil moisture status is lowest (depth, months):
 2.0 feet February August
Ponding does not occur (months):
 January February May June July August September October
 November December
Ponding is deepest (depth, months):
 1.0 foot April
Available water capacity to a depth of 60 inches: 11.7 inches
Content of organic matter in the upper 10 inches: 8.5 percent
Typical profile:
 H1--0 to 10 inches; silty clay loam
 H2--10 to 36 inches; silty clay loam
 H3--36 to 60 inches; silt loam

927--Harps-Seaforth-Okoboji Complex

Component Description

Harps and similar soils

Extent: 35 percent of the unit
Geomorphic description:
 Rim on depression
Slope range: 0 to 2 percent
Surface layer texture: Clay loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
 0.5 foot April
Wet soil moisture status is lowest (depth, months):
 3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.7 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
 H1--0 to 10 inches; clay loam
 H2--10 to 31 inches; loam
 H3--31 to 60 inches; loam

Okoboji and similar soils

Extent: 25 percent of the unit
Geomorphic description:
 Depression
Slope range: 0 to 1 percent
Surface layer texture: Silty clay loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
 At the surface March April
Wet soil moisture status is lowest (depth, months):
 2.0 feet February August
Ponding does not occur (months):
 January February May June July August September October
 November December
Ponding is deepest (depth, months):

1.0 foot April
Available water capacity to a depth of 60 inches: 12.1 inches
Content of organic matter in the upper 10 inches: 8.5 percent
Typical profile:
H1--0 to 26 inches; silty clay loam
H2--26 to 60 inches; silty clay loam

Seaforth and similar soils

Extent: 25 percent of the unit
Slope range: 1 to 3 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Moderately well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
 2.5 feet April
Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.9 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
 H1--0 to 10 inches; loam
 H2--10 to 22 inches; loam
 H3--22 to 60 inches; loam

954B--Ves-Swanlake Loams, 2 To 6 Percent Slopes

Component Description

Ves and similar soils

Extent: 65 percent of the unit
Slope range: 2 to 5 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
 3.6 feet April
Wet soil moisture status is lowest (depth, months):
 More than 5.0 feet January February July August
 September October December
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
 H1--0 to 10 inches; loam
 H2--10 to 20 inches; clay loam
 H3--20 to 60 inches; loam

Swanlake and similar soils

Extent: 25 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):

3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 60 inches; loam

954C--Swanlake-Ves Loams, 6 To 12 Percent Slopes

Component Description

Swanlake and similar soils
Extent: 50 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
 H1--0 to 9 inches; loam
 H2--9 to 60 inches; loam

Ves and similar soils

Extent: 40 percent of the unit

Slope range: 6 to 12 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 4.0 percent

Typical profile:

H1--0 to 10 inches; loam

H2--10 to 20 inches; loam

H3--20 to 60 inches; loam

954D--Swanlake-Ves Loams, 12 To 18 Percent Slopes

Component Description

Swanlake and similar soils
Extent: 60 percent of the unit
Slope range: 12 to 18 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.1 inches
Content of organic matter in the upper 10 inches: 2.8 percent
Typical profile:
H1--0 to 9 inches; loam
H2--9 to 60 inches; loam

Ves and similar soils

Extent: 30 percent of the unit
Slope range: 12 to 18 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.5 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 20 inches; loam
H3--20 to 60 inches; loam

981--Canisteo-Harps Loams

Component Description

Canisteo and similar soils

Extent: 45 percent of the unit
Geomorphic description:
Flat
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 9.8 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 21 inches; loam
H3--21 to 29 inches; loam
H4--29 to 60 inches; loam

Harps and similar soils

Extent: 40 percent of the unit
Geomorphic description:
Rim on depression
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Poorly drained

Flooding: None
Wet soil moisture status is highest (depth, months):
0.5 foot April
Wet soil moisture status is lowest (depth, months):
3.3 feet February August
Ponding: None
Available water capacity to a depth of 60 inches: 10.8 inches
Content of organic matter in the upper 10 inches: 4.5 percent
Typical profile:
H1--0 to 15 inches; loam
H2--15 to 28 inches; loam
H3--28 to 60 inches; loam

999B--Ves-Swanlake-Hawick Complex, 2 To 6 Percent Slopes

Component Description

Ves and similar soils

Extent: 40 percent of the unit
Slope range: 2 to 5 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
H1--0 to 14 inches; loam
H2--14 to 23 inches; loam
H3--23 to 60 inches; loam

Swanlake and similar soils

Extent: 30 percent of the unit
Slope range: 2 to 6 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Wet soil moisture status is highest (depth, months):
3.6 feet April
Wet soil moisture status is lowest (depth, months):
More than 5.0 feet January February July August
September October December
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
H1--0 to 10 inches; loam
H2--10 to 60 inches; loam

Hawick and similar soils

Extent: 20 percent of the unit
Slope range: 2 to 6 percent

Surface layer texture: Loamy coarse sand
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 3.4 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:
 H1--0 to 10 inches; loamy coarse sand
 H2--10 to 21 inches; loamy coarse sand
 H3--21 to 60 inches; gravelly coarse sand

999C--Swanlake-Ves-Hawick Complex, 6 To 12 Percent Slopes

Component Description

Swanlake and similar soils

Extent: 40 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 11.2 inches
Content of organic matter in the upper 10 inches: 3.0 percent
Typical profile:
 H1--0 to 10 inches; loam
 H2--10 to 60 inches; loam

Ves and similar soils

Extent: 25 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loam
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Well drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None
Available water capacity to a depth of 60 inches: 10.6 inches
Content of organic matter in the upper 10 inches: 4.0 percent
Typical profile:
 H1--0 to 14 inches; loam
 H2--14 to 23 inches; clay loam
 H3--23 to 60 inches; loam

Hawick and similar soils

Extent: 20 percent of the unit
Slope range: 6 to 12 percent
Surface layer texture: Loamy sand
Depth to restrictive feature:
 Very deep (more than 60 inches)
Drainage class: Excessively drained
Flooding: None
Depth to wet soil moisture status: More than 5.0 feet all year
Ponding: None

Available water capacity to a depth of 60 inches: 3.4 inches
Content of organic matter in the upper 10 inches: 2.0 percent
Typical profile:

H1--0 to 10 inches; loamy sand
H2--10 to 21 inches; loamy sand
H3--21 to 60 inches; sand

1016--Udorthents, Loamy

Component Description

Udorthents, loamy and similar soils

Extent: 90 percent of the unit

Slope range: 0 to 10 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Well drained

Flooding: None

Depth to wet soil moisture status: More than 5.0 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 6.6 inches

Content of organic matter in the upper 10 inches: 0.8 percent

Typical profile:

H1--0 to 60 inches; loam

1029--Pits, Gravel

Component Description

Pits, gravel

Extent: 90 percent of the unit

Slope range: 0 to 45 percent

Flooding: None

Ponding: None

1055--Aquolls And Histosols, Ponded

Component Description

Aquolls, ponded and similar soils

Extent: 60 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 2 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

H1--0 to 30 inches; loam

H2--30 to 60 inches; loam

Histosols, ponded and similar soils

Extent: 40 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 1 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months):

0.5 foot August

Ponding is deepest (depth, months):

3.0 feet March April May

Available water capacity to a depth of 60 inches: 16.0 inches

Content of organic matter in the upper 10 inches: 75.0 percent

Typical profile:

H1--0 to 20 inches; muck

H2--20 to 50 inches; coprogenous earth

H3--50 to 60 inches; loam

1065B--Aquolls And Histosols, Sloping

Component Description

Aquolls, sloping and similar soils

Extent: 50 percent of the unit

Geomorphic description:

Hill

Slope range: 0 to 4 percent

Surface layer texture: Loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

H1--0 to 20 inches; loam

H2--20 to 60 inches; loam

Histosols, sloping and similar soils

Extent: 50 percent of the unit

Geomorphic description:

Hill

Slope range: 0 to 4 percent

Surface layer texture: Muck

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface April May June

Wet soil moisture status is lowest (depth, months):

1.5 feet February

Ponding: None

Available water capacity to a depth of 60 inches: 17.1 inches

Content of organic matter in the upper 10 inches: 79.5 percent

Typical profile:

H1--0 to 30 inches; muck

H2--30 to 60 inches; loam

1356--Water, Miscellaneous

Component Description

Water, miscellaneous

Extent: 100 percent of the unit

Miscellaneous water map units are not naturally occurring water areas. They are constructed and include; sewage lagoons, storm water sediment basins with a permanent pool of water, and aquaculture ponds. This map unit is not soil, no interpretations assigned.

1900--Okoboji-Canisteo Silty Clay Loams, Depressional

Component Description

Okoboji and similar soils

Extent: 55 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 1 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained

Flooding: None

Wet soil moisture status is highest (depth, months):

At the surface March April

Wet soil moisture status is lowest (depth, months):

2.0 feet February August

Ponding does not occur (months):

January February May June July August September October

November December

Ponding is deepest (depth, months):

1.0 foot April

Available water capacity to a depth of 60 inches: 12.3 inches

Content of organic matter in the upper 10 inches: 8.5 percent

Typical profile:

H1--0 to 32 inches; silty clay loam

H2--32 to 43 inches; silty clay loam

H3--43 to 60 inches; silt loam

Canisteo and similar soils

Extent: 30 percent of the unit

Geomorphic description:

Depression

Slope range: 0 to 1 percent

Surface layer texture: Silty clay loam

Depth to restrictive feature:

Very deep (more than 60 inches)

Drainage class: Very poorly drained
Flooding: None
Wet soil moisture status is highest (depth, months):
At the surface March April
Wet soil moisture status is lowest (depth, months):
2.0 feet February August
Ponding does not occur (months):
January February May June July August September October
November December
Ponding is deepest (depth, months):
1.0 foot April
Available water capacity to a depth of 60 inches: 10.1 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 17 inches; silty clay loam
H2--17 to 30 inches; silt loam
H3--30 to 60 inches; loam

1908--Biscay-Palms Complex

Component Description

Biscay and similar soils

Extent: 50 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 2 percent
Surface layer texture: Loam
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Frequent March April May June
Wet soil moisture status: At the surface all year
Ponding: At 0.5 foot all year
Available water capacity to a depth of 60 inches: 6.3 inches
Content of organic matter in the upper 10 inches: 6.0 percent
Typical profile:
H1--0 to 20 inches; loam
H2--20 to 26 inches; sandy clay loam
H3--26 to 60 inches; gravelly coarse sand

Palms and similar soils

Extent: 40 percent of the unit
Geomorphic description:
Depression
Slope range: 0 to 2 percent
Surface layer texture: Muck
Depth to restrictive feature:
Very deep (more than 60 inches)
Drainage class: Very poorly drained
Flooding does not occur (months):
January February September October November December
Flooding is most likely (frequency, months):
Frequent March April May June
Wet soil moisture status: At the surface all year
Ponding: At 0.5 foot all year
Available water capacity to a depth of 60 inches: 11.9 inches
Content of organic matter in the upper 10 inches: 35.0 percent

Typical profile:

H1--0 to 21 inches; muck
H2--21 to 29 inches; loam
H3--29 to 60 inches; sand

W--Water

Component Description

Water

Extent: 100 percent of the unit

This mapunit consists of natural occurring bodies of water or water that has been impounded by structures in natural waterways. They range in size from 1.5 acres to tens of thousands of acres. This map unit is not soil, no interpretations assigned.